Case Report
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BILATERAL HYDRONEPHROSIS CAUSED BY VAGINAL PROLAPSE

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ABSTRACT

Introduction: Even though it is uncommon, uterine prolapse can cause compression of ureters and bilateral hydronephrosis, predisposing to arterial hypertension and renal failure. Hydronephrosis consequent to cystocele and to vaginal prolapse is even rarer.

Case Report: This paper reports on a 59 year-old patient, Caucasian, obese and hysterectomized who presented complete vaginal prolapse with bilateral hydronephrosis and slight alteration in serum urea and creatinine. Patient underwent correction of vaginal prolapse by endoscopic suspension technique with improvement of hydronephrosis and normalization of renal function. This work emphasizes the rarity of such case and the requirement of surgical approach.

Key words: vagina; vaginal prolapse; hydronephrosis
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INTRODUCTION

Uterine prolapse can cause dilatation of upper urinary tract due to ureteral obstruction that, if left untreated, can impair renal function leading to anuria and arterial hypertension (1). Bilateral hydronephrosis due to cystocele and, especially, to vaginal prolapse, is very rare.

CASE REPORT

E.F.C.B., 59 years old, Caucasian, widowed, was referred to the Urology Service with vaginal prolapse and ultrasonography of urinary tract evidencing bilateral grade II/III hydronephrosis.

As for her antecedents, she reported having 4 pregnancies in the past, with 2 normal deliveries, 1 cesarean and 1 miscarriage. She was hysterectomized by abdominal route 1 year before due to uterine myoma, and on that occasion, a vesical suspension was also performed. She did not present urinary incontinence.

On physical examination, she had a pyknic constitution, was obese and presented a good general state. Gynecologic examination showed a marked vaginal prolapse throughout its entire extension with excoriations, hyperemia and fissures on the posterior wall of vagina (Figure-1). Laboratory tests showing alteration in urea 67.1 mg % (normal < 40 mg %), creatinine 1.35 mg % (normal < 1.30 mg %) and glycemia 131 mg % (normal < 110 mg %). She did not present urinary infection. The excretory urography confirmed the presence of bilateral hydronephrosis (Figure-2).

Patient underwent an endoscopic colposuspension (3), with good post-operative results within 3 months of follow-up, and improvement of hydronephrosis grade (grade I).

COMMENTS

It is estimated that 4 to 7% patients with uterine prolapse have obstructive uropathy. The mechanism most likely is direct compression of ureters (2). In the uterine prolapse, there is herniation of bladder, uterus and ureters through the pelvic floor and the ureters are compressed between the fundus of uterus and the bladder, against the levator ani muscles. In this case,

Figure 1 – *Marked vaginal prolapse throughout its entire extension.*

since there was no uterus, we suspect that obstruction had occurred due to ureteral compression against the pelvic musculature, as well as to ureteral stretching itself, what makes peristaltic movements difficult.

Stress urinary incontinence usually is associated to small cystoceles. Large cystoceles, associated or not with uterine prolapse, predispose to obstructive voiding symptoms, chronic residual urine and rarely to bilateral hydronephrosis with potential impairment of renal function. In women presenting dilatation of upper urinary tract one must always rule out, among other causes, uterine or vesical prolapse.

Surgical correction either by suprapubic or vaginal approach, intends to resolve the obstructive urinary picture, even though it is known that it can predispose to stress urinary incontinence. When the uterus is present, hysterectomy and vaginal plastic surgery are performed. When there are contraindications to surgery, the pressary can be indicated in order to reduce the uterine prolapse (1).

In the case found in literature, it was performed the fixation of the vaginal dome in sacral promontory complemented with colpourethropexy in Cooper's ligament (2). In the case reported here, despite the patient being pyknic and obese, with 2 previous surgeries in lower abdomen, the use of vaginal suspension with endoscopic control has shown to be a simple and practical procedure.

Figure 2 – *Excretory urography evidencing bilateral hydronephrosis due to vaginal prolapse.*

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